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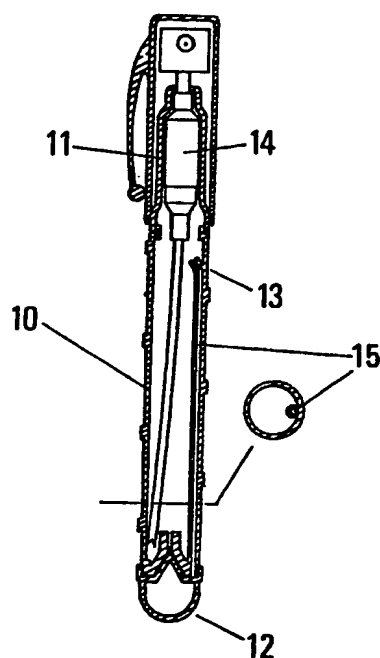
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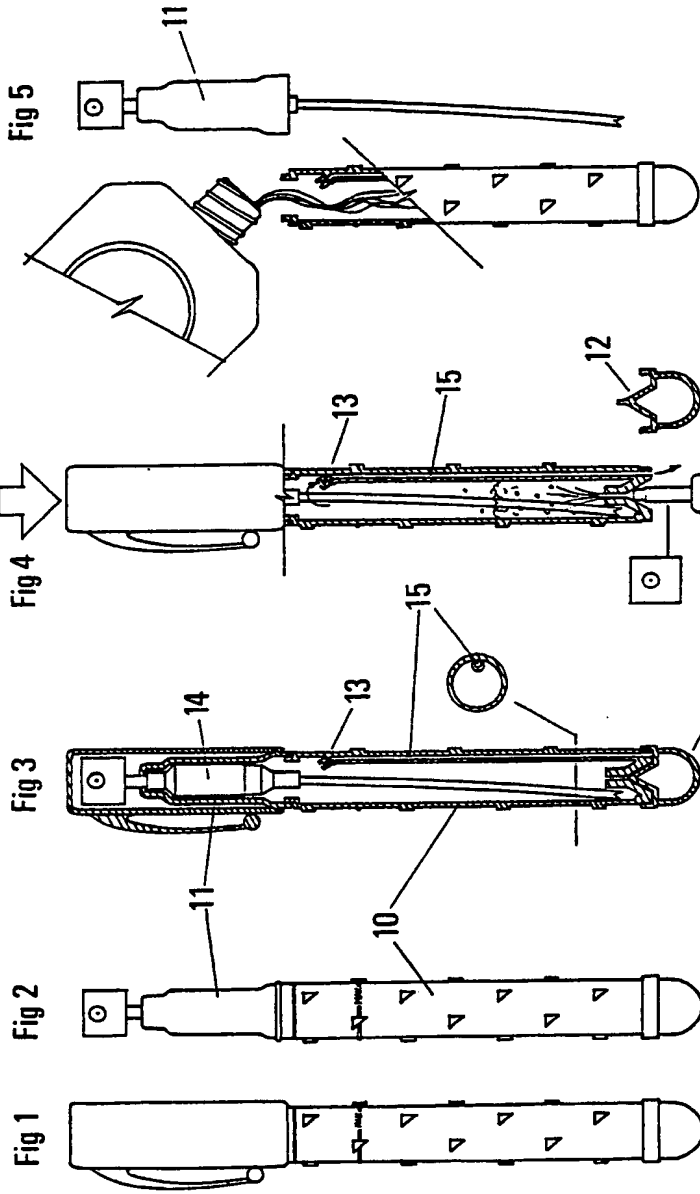
(54) Refillable pen-style perfume atomiser

(57) A perfume atomiser, with cap and body in the style of a pen, can be refilled from larger donor bottles of perfume. In the case of ordinary donor bottles – that is those that are neither atomiser or aerosol, sections 10 and 11 are separated and 10 is filled by pouring. Alternatively with donor atomisers and aerosols, refilling is conducted by separating 10 and 12, removing the spray nozzle of the donor atomiser or aerosol, inserting the stub of the donor's pump mechanism into the cone shaped aperture at the base of 10 and using a pump action to inject the perfume. Air compressed in the body as it fills is released through a one-way valve 13 and outlet tube 15.

Fig 3



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REFILLABLE PEN STYLE PERFUME ATOMISER

This invention relates to a refillable pen style atomiser.

There are essentially three ways in which personal fragrances are packaged. There are bottles with simple lids and more sophisticated atomisers and aerosols. These containers are generally very bulky. This includes those designed to be carried in handbags. None could realistically be carried in a pocket. Very small containers are manufactured but only as samples. This is because of the high packaging cost to contents ratio and the impracticality of buying such small quantities of perfume.

At present Consumers tend to leave perfume bottles at home using them at the most morning and evening or resort to carrying larger handbags.

According to the present invention there is provided a refillable pen style perfume atomiser comprising a slim body in the form of a pen; an atomiser spray mechanism and nozzle; a cap with a pocket clip; a perfume reservoir which has facilities for being filled by larger bottles atomisers or aerosols containing the desired fragrance; a one-way valve and outlet tube allowing air compressed in the body to escape.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:-

Figure 1 shows the exterior of the perfume pen.

Figure 2 shows perfume pen with cap removed.

Figure 3 shows a cross section of the perfume pen.

Figure 4 shows the method of refilling by atomiser or aerosol.

Figure 5 shows the method of refilling from a simple bottle.

Referring to the drawing the perfume pen comprises a slim pen styled body with conventional atomiser mechanism 14 figure 3. The major section 10 figure 2 is transparent has a decorative grip and a maximum refill level mark. Section 11 figure 5 can be unscrewed to facilitate refilling by pouring from an ordinary bottle. Section 12 figure 4 can be unscrewed for refilling by atomiser or aerosol. This is achieved by removing the spray nozzle from the bottle containing the desired fragrance and inserting the stub of the atomiser mechanism into the base of Section 10. This is cone shaped to allow for the variation in size of stub that generally exist. In the case of refilling by another atomiser, the perfume pen is simply pumped up and down on the stub. With an aerosol the pen does not need to be pumped, merely depressed.

As the reservoir fills with perfume one-way valve 13 figure 4 allows air compressed in the body to escape through outlet tube 15. Section 12 seals the perfume reservoir and outlet tube. The tube will not fill with perfume when in use because in order for the valve to open it would have to compress the air contained in the tube. This it cannot do.

CLAIMS

1. A refillable pen style perfume atomiser, comprising a body in the form of a pen, an atomiser mechanism, means of refilling its perfume reservoir from donor bottles, atomisers and aerosols, and an outlet to remove air from the body.
2. A refillable pen style perfume atomiser as claimed in Claim 1, wherein a sealable aperture is provided for refilling by atomiser or aerosol.
3. A refillable pen style perfume atomiser as claimed in Claim 2, wherein the aperture provided for refilling by atomiser or aerosol is shaped so as to accept the insertion of varying sizes of donor pump mechanisms.
4. A refillable pen style perfume atomiser as claimed in any preceding Claim, wherein the top section of the body can be separated from the bottom section, to facilitate refilling by pouring from an ordinary donor bottle - that is one without either atomiser or aerosol pump mechanisms.
5. A refillable pen style perfume atomiser as claimed in any preceding Claim, wherein air compressed in the body due to the injection of perfume, is removed via a one-way valve.
6. A refillable pen style perfume atomiser as claimed in Claim 5, wherein the one-way valve is attached to a sealable outlet tube which exits at the bottom end of the body.
7. A refillable pen style perfume atomiser as claimed in any preceding Claim, wherein a pocket clip is provided.
8. A refillable pen style perfume atomiser substantially as described herein with reference to figures 1 - 5 of the accompanying drawing.

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